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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,438	05/16/2001	Donald R. Ryan	D/A0477Q2	2481

7590

12/04/2003

Patent Documentation Center
Xerox Corporation
Xerox Square 20th Floor
100 Clinton Ave. S.
Rochester, NY 14644

EXAMINER

WASSUM, LUKE S

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,438

Applicant(s)

RYAN ET AL.

Examiner

Luke S. Wassum

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. The Applicants' claim to priority under 35 U.S.C. 119(e), based upon provisional application number 60/204,720, filed 16 May 2000, is acknowledged.

Information Disclosure Statement

2. The Applicants' Information Disclosure Statements, filed 9 August 2001, 10 April 2002, 31 July 2002 and 16 May 2003 have been received, entered into the record, and considered. See attached forms PTO-1449.
3. The Information Disclosure Statement filed 10 April 2002 (paper number 5), includes a reference to a non-patent document "IBM – G544-5327-00 Redefining Printing for Large Mailroom Operations". This reference has not been considered, because no copy of the reference was submitted to the examiner.

Claim Objections

4. Claims 4, 10 and 29 are objected to because of the following informalities:

In claim 4, there appears to be a typographical error in the claim "...receiving reference pointers to locations where *at* some specific job description information is stored".

In claim 10, there appears to be a typographical error in the claim "...further comprising including..."

In claim 29, there appears to be a typographical error in the claim "...stored in hierarchically arranged *of* nodes of information".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 14 recites the limitation "the step of receiving build sequence information". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-29 are rejected under 35 U.S.C. 102(b) as being anticipated by **Marlin et al.** (U.S. Patent 5,778,377).

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10. Regarding claim 1, **Marlin et al.** teaches a method for a virtual finishing job ticket database as claimed, comprising:

- a) storing in the database a list of capability and constraint attributes for each available finishing device (see finishing object 40 in Figure 7; see also col. 11, lines 21-27);
- b) receiving finishing job description information, including descriptions of job segments of the job (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18); and
- c) storing the finishing job description information in the database (see object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

11. Regarding claim 27, **Marlin et al.** teaches a method for a database system, comprising:

- a) storing capability and constraint attributes in the database (see finishing object 40 in Figure 7; see also col. 11, lines 21-27);
- b) communicating the capability and constraint attributes to the production monitor controller (see disclosure of the interface to the Management Information Format (MIF) file, col. 5, lines 19-31; see also disclosure of the agent programs, and particularly the management reports agent, col. 11, lines 31-60);
- c) creating a job model location within the database for storing a description of the job and its components, including job segments (see object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18);
- d) receiving from the production monitor controller information that describes the job and its components, including descriptions of job segments of the job (see col. 4, lines 16-

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38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18); and

e) storing the description of the job and its components, including job segments, in the job model location within the database (see object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

12. Regarding claim 28, **Marlin et al.** teaches a virtual finishing job ticket database comprising:

a) job construction data (see object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18);

b) control data for instructing performance of at least one finishing device (see process object 38 in Figure 7; see also col. 11, lines 15-18); and

c) integrity data used after performance of the finishing device in order to confirm that the job was finished in accordance with the job construction data (see disclosure that prior art systems included an error recovery operation such that if a job is completed without incident, that can be recorded, col. 3, lines 43-45).

13. Regarding claim 29, **Marlin et al.** additionally teaches a virtual finishing job ticket database wherein the job construction data, control data and integrity data are stored in hierarchically arranged nodes of information (see Figure 10B; see also col. 17, lines 17-26).

14. Regarding claim 2, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving job description information comprises receiving a description of finishing operations for a job comprising printed sheet workpieces (see col. 4, lines

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16-38, particularly lines 21-24; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

15. Regarding claim 3, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving finishing job description information comprises receiving such information from a production monitor controller (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

16. Regarding claim 4, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving comprises receiving reference pointers to locations where some specific job description information is stored (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

17. Regarding claim 5, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database further comprising arranging finishing job description information in a hierarchical manner (see Figure 10B; see also col. 17, lines 17-26).

18. Regarding claim 6, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of arranging further comprises arranging in a hierarchical tree structure (see Figure 10B; see also col. 17, lines 17-26).

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19. Regarding claim 7, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of arranging in a hierarchical manner further comprises including, within at least one node at each level within the hierarchy of nodes, reference pointers to at least one node at a different level in the hierarchy such that all nodes of a job are referenced by at least one other node within the hierarchy arrangement of nodes (see Figure 10B; see also col. 17, lines 17-26).

20. Regarding claim 8, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of arranging further comprises arranging a top level node comprising job identification data (see disclosure that the concept of components includes mail jobs, col. 12, lines 28-31; see also col. 13, lines 9-18; see also Figure 10B; see also col. 17, lines 17-26).

21. Regarding claim 9, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of arranging a top level node further comprises including within the top level node reference pointers to at least one node at a hierarchical level below the top level (see Figure 10B; see also col. 17, lines 17-26).

22. Regarding claim 10, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database, further including at least one node within the hierarchy of nodes in which one of a pre-designated list of document forms is identified as applying to a document to be finished during the finishing job (see disclosure that the concept of components includes mail jobs, col. 12, lines 28-31; see also col. 13, lines 9-18; see also disclosure of the object class, mail job object class, process object class and finishing object class, col. 11, lines 5-27; see also Figure 10B; see also col. 17, lines 17-26).

23. Regarding claim 11, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database, further comprising using a reference pointer within at least one node to a list of attributes of the identified document form, which list is stored outside of the node itself (see Figure 10B; see also col. 17, lines 17-26; see also disclosure of the object class, mail job object class, process object class and finishing object class, col. 11, lines 5-27).

24. Regarding claim 12, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving comprises receiving from the production monitor controller job model information comprising information associated with possible threads for production of the finishing job (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and particularly the process object 38 in Figure 7; see also col. 11, lines 1-18).

25. Regarding claim 13, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving job model information further comprises receiving build sequence information for production of the finishing job (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and particularly the process object 38 in Figure 7; see also col. 11, lines 1-18).

26. Regarding claim 14, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving build sequence information includes receiving information for programming operation of at least one finishing device to be used during the

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finishing job (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and particularly the process object 38 in Figure 7; see also col. 11, lines 1-18).

27. Regarding claim 15, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of storing further comprises storing information for different job segments in different nodes within a hierarchy of nodes (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18; see also disclosure that the concept of components includes mail jobs, col. 12, lines 28-31; see also col. 13, lines 9-18; see also Figure 10B; see also col. 17, lines 17-26).

28. Regarding claim 16, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of storing further comprises storing information in a plurality of nodes at the same level within a hierarchy of nodes (see disclosure that the concept of components includes mail jobs, col. 12, lines 28-31; see also col. 13, lines 9-18; see also Figure 10B; see also col. 17, lines 17-26).

29. Regarding claim 17, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving further comprises receiving information associated with job segments produced by different production equipment and wherein the step of storing further comprises storing information describing such different job segments in different nodes of the virtual finishing job ticket database (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18; see also

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disclosure that the concept of components includes mail jobs, col. 12, lines 28-31; see also col. 13, lines 9-18; see also Figure 10B; see also col. 17, lines 17-26).

30. Regarding claim 18, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database further comprising creating an information node within the virtual finishing job ticket database wherein descriptive information of a job segment is stored, such as job segment comprising a combination of a plurality of job segments produced by different production equipment (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18; see also disclosure that the concept of components includes mail jobs, col. 12, lines 28-31; see also col. 13, lines 9-18; see also Figure 10B; see also col. 17, lines 17-26).

31. Regarding claim 19, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving further comprises receiving the finishing job description information from a production monitor controller (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

32. Regarding claim 20, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database further comprising providing access to the stored finishing job description information to a finishing module controller (see col. 5, lines 7-32).

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33. Regarding claim 21, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database further comprising associating the stored finishing job description information regarding at least one job segment with a job segment identifier code such that such stored information can be accessed through use of the job segment identifier code (see col. 12, lines 46-59; see also col. 13, lines 9-18).

34. Regarding claim 22, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving further comprises receiving a digital copy of a virtual finishing job ticket (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

35. Regarding claim 23, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of storing capability and constraint attributes comprises storing capability and constraint attributes for all finishing devices usable for the finishing job (see disclosure of the finishing object, col. 11, lines 21-27; see also col. 13, lines 9-30).

36. Regarding claim 24, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the availability of a finishing device is one of the attributes stored in the virtual finishing job ticket database (see col. 11, lines 40-60).

37. Regarding claim 25, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving comprises receiving data for controlling at least one

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finishing device (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18).

38. Regarding claim 26, **Marlin et al.** additionally teaches a method for a virtual finishing job ticket database wherein the step of receiving comprises receiving integrity data used after performance of the finishing device in order to confirm that the job was finished in accordance with the job description data (see col. 4, lines 16-38; see also object class 35, mail job object 36, mail piece object 37 and process object 38 in Figure 7; see also col. 11, lines 1-18; see also disclosure that prior art systems included an error recovery operation such that if a job is completed without incident, that can be recorded, col. 3, lines 43-45).

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bartlett et al. (U.S. Patent 4,539,653) teaches a mechanism for implementing text and graphics formatting based upon a logical page area on a presentation receiving medium.

DeHority (U.S. Patent 5,129,639) teaches a system that compares the print job requirements to a printer capability for stapling, folding, duplexing, and stacking, and determines the best match therebetween.

Smith et al. (U.S. Patent 5,181,162) teaches an object-oriented document management and production system in which documents are represented as collections of logical components or "objects" that may be combined and physically mapped onto a page-by-page layout.

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Marlin et al. (U.S. Patent 5,546,577) teaches an object oriented database that is utilized to model a complex process since it is easily extended to include tables of transactions for each of the many process steps in a complex operation. In particular, the process modeled is that of document production and finishing.

Salgado (U.S. Patent 5,579,087) teaches a technique of constructing a multi-segment print job from multiple local and remote sources on a network using a network interface to identify print job segments and location of segments on the network by entering a start build print job function at the network interface, identifying each segment of the print job including segment location, specifying print job characteristics such as quality and quantity for each segment, entering an end build print job function at the network interface, and identifying a print device on the network whereby each segment of the print job is accessed and distributed to the printing device to complete the multi-segment print job.

Marlin et al. (U.S. Patent 5,680,615) teaches an object oriented database that is utilized to model a complex process since it is easily extended to include tables of transactions for each of the many process steps in a complex operation. In particular, the process modeled is that of document production and finishing.

Hamilton (U.S. Patent 5,715,381) teaches a method of creating and managing packages, including multiple documents, in a printing system.

Austin et al. (U.S. Patent 5,761,396) teaches a document server for processing a distribution job, including a document manager which routes job tickets and corresponding image data to virtual services for production.

Sklut et al. (U.S. Patent 5,790,119) teaches a job ticket programming system for use in a printing system.

Salgado et al. (U.S. Patent 5,872,569) teaches a technique of constructing a multi-segment print job from multiple local and remote sources on a network using a network interface to identify print job segments and location of segments on the network by entering a start build print job function at the network interface, identifying each segment of the print job including segment location, specifying print job characteristics such as quality and quantity for each segment, entering an end build print job function at the network interface, and identifying a print device on the network whereby each segment of the print job is accessed and distributed to the printing device to complete the multi-segment print job.

Rourke et al. (U.S. Patent 5,995,721) teaches a document processing system including at least one document reproduction device and managing on-demand output of a document job, the document job being characterized by a set of job attributes, each of which relates to a manner in which the document job is to be processed.

Shibusawa et al. (U.S. Patent 6,088,120) teaches a printer managing apparatus including a physical printer managing unit for managing the output of the attribute information of individual physical printers.

Collard et al. (U.S. Patent 6,181,893) teaches a digital image reproduction apparatus.

Motamed et al. (U.S. Patent 6,327,050) teaches a multiple raster image processor system including a print instruction file comprising post language processing operators.

Salgado (U.S. Patent 6,504,621) teaches a technique of constructing a multi-segment print job from multiple local and remote sources on a network using a network interface to identify print job segments and location of segments on the network by entering a start build print job function at the network interface, identifying each segment of the print job including segment location, specifying print job characteristics such as quality and quantity for each segment, entering an end

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build print job function at the network interface, and identifying a print device on the network whereby each segment of the print job is accessed and distributed to the printing device to complete the multi-segment print job.

Motamed et al. (U.S. Patent 6,559,958) teaches a multiple raster image processor system including a print instruction file comprising post language processing operators.

Barry et al. (U.S. Patent 6,606,165) teaches a method for routing page data of a print job to the printers in a multi-print engine based on print job parameters associated with the page data of the print job.

Endoh et al. (U.S. Patent Application Publication 2003/0142332) teaches a document production apparatus, wherein the apparatus judges whether or not a job script can be issued to a specific peripheral.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 703-305-5706. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 703-746-5658.

Customer Service for Tech Center 2100 can be reached during regular business hours at (703) 306-5631, or fax (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Luke S. Wassum
Art Unit 2177

lsw
1 December 2003